

# Mycobacterium bovis

- Bovine TB can be transmitted from livestock to deer, other animals, and humans; i.e. zoonotic
- No other organism has as great a host range as bovine TB
- Bacteria that devastates respiratory system of animals and humans



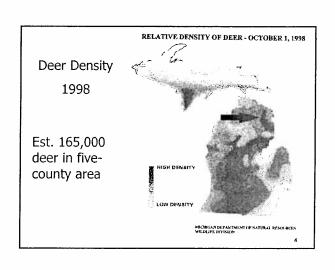


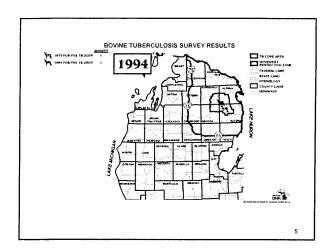


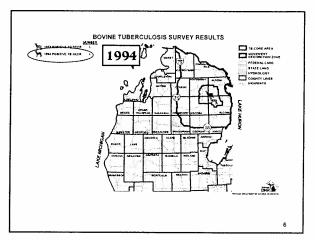
How it all began . . .
1920's
High Risk Counties for Bovine TB

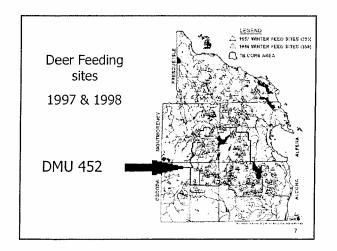
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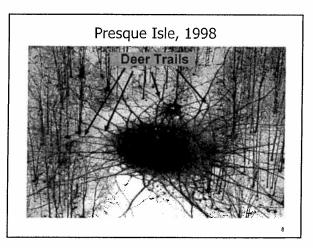
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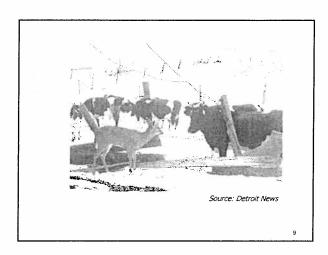


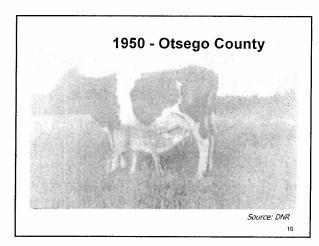












# Why Eradicate Bovine TB?

#### Public Health Risk

Transmitted through milk, air, open wounds

#### Viability of Agriculture Industry

- 1 million+ cattle (Source: USD4)
- 14,000 herds (Source: MDA)
- \$2.4 billion ≈ Value of livestock/dairy production (Source: USDA)

#### Economic Loss to State

- \$156 million = Projected loss for agriculture industry over 10 years (Source: MSU)
- \$25 million = Estimated annual loss for sport hunting industry in Northeast Lower Michigan (Source: MSU)



## Bovine TB Eradication Project

Multi-agency collaboration to identify and establish bovine TB disease boundaries (zones) through:

- Statewide testing of all known cattle, bison, goats, privately owned deer and elk
- Statewide testing of hunterharvested free-ranging deer
- Program policy based upon scientific research
- Education and outreach



Lungs of a two-year-old Michigan heifer discovered at slaughter. Source: USDA Food Safety and Inspection Service, 2001

## **Program Objectives**



- Identify Infection
- Prevent Spread
- Eradicate Disease

The program works! Michigan strain of TB has not been found in any other zone, any other state, or internationally.

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### **Current MDA TB Zones**

- TB Free Zone ¬
- TB Modified Accredited Zone
- Modified Accredited Advanced TB Zone (last stage before becoming TB free)



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### MDA Modified Accredited Zone

Annual cattle whole-herd and movement testing:

- 41 positive herds (80 out of 4,462 animals)
- Only 2 herds found by slaughter surveillance
- 39 found by live animal surveillance testing
- 2 deer herds found

Electronic animal identification Movement permitting and tracking Risk mitigation strategies



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### Additional On-Farm Measures

- On farm risk assessments
- Restrictive repopulation requirements
- USDA accredited TB free herds (more restrictions)
- USDA wildlife services:

Fencing

Dogs

Deer removal



#### Modified Accredited Advanced Zone

No evidence of bovine TB, therefore MDA will seek free movement for cattle in this zone.

- By 2004, all cattle in this zone had been tested at least once
- Now, 725 herds annually undergo random surveillance testing
- In 2007, MDA will apply to USDA for TB free status in this zone
- TB free status will eliminate costs of testing for the producer



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### **Electronic Identification**

The purchase of more than 906,000 electronic tags, to date, will help to:

- Receive higher status for TB zones;
- Provide faster/more accurate tracking in event of foodborne illness outbreak; and for disease control and eradication programs;
- Reduce number of animals impacted by quarantines;
- Increase testing efficiency while reducing costs; and
- . Increase market access.



Steer running through

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## **Current Program Priorities**

Critical to earning TB free status in Modified Accredited Advanced Zone:

- Zoning order effective March 1, 2007
- · Disease surveillance testing
- Movement certification
- Compliance program
   Electronic Identification



## Summing Up . . .

- All sexually intact cattle 6 months of age or older leaving the Modified Accredited Advanced Zone must have a negative TB test;
- All Michigan cattle exhibited, or for sale, in every zone must have electronic eartags when leaving a farm; and
- Cattle farmers moving animals between zones must obtain movement certification from MDA.
- To order electronic eartags, obtain movement certification or receive more information: 866-870-5136



# Michigan Model

"The close cooperation between the MDA, MDNR, MDCH and MSU stands as a model to be emulated by any other state which may need to deal with a similar problem."











USDA VS Bovine TB Program Review 2000